

PROJECT TITLE : MATERIAL DEVELOPMENT
PERIOD COVERED : APRIL 29 - MAY 22 1981
WRITTEN BY : Erkohen-E. (ELE)

1. CIGARETTE PAPER

Glatz 130 Molettevergé

Objective

Reduction in CO in MLF and MLK brands through the use of cigarette paper.

Summary

In October 1980 Glatz stated that they could produce a cigarette paper that would reduce CO values. We received five bobbins of a paper similar to WP-60 (Reference 1) and MLF-CH cigarettes were made.

Description of Samples and Results

The smoke delivery analyses for the cigarettes with the important physical cigarette parameters are given in the table on the following page.

Conclusion

All smoke deliveries are on the same level compared to the standard. Although the supplier insisted that we should be able to decrease the CO level with this new technique applied to paper, no decrease was noted.

Table 1

	MLF-CH Trial	MLF-CH Control
Cigarette Paper	J. Glatz 130 Moletteverge	WP-60
Permeability ₂ "ml/min cm"	58	53 ± 5
Tobacco Weight at 12% o.v. "mg"	794	791
RTD of Cig "mm WG"	91	89
RTD of Filter "mm WG"	63	62
Dilution "US" %	20 ± 3	20 ± 3
TA %	1.82	1.79
RS %	7.6	7.6
Nitrate-N %	0.19	0.18
Ammonia-N %	0.31	0.31
CO mg/cig	17.1	16.1
NO mg/cig	0.26	0.24
TPM mg/cig	19.9	18.3
DPM mg/cig	17.5	16.3
SN mg/cig	1.18	1.13
Puffs	9.4	9.4
HCN µg/cig	223	194
Aldehydes mg/cig	1.28	1.26

2. NEW FILTRATION MATERIAL

Eastman 3.3/44.000 Y Tow

Objective

3.3/44.000 tow evaluation. Possible replacement of the existing 3.4/46.000 I by this item.

Summary

In September 1980 Eastman submitted a 3.3/44.000 Y tow similar to the type used in PM-USA. The first test run on the "capability" of this tow was not conclusive. In the meantime PM-USA changed the lot number, so we ordered a new bale similar to the type PM-USA is now using. On 23rd January 1981 trial runs on a KDF rod maker were made without any difficulty with this tow. The item was evaluated on the basis of its capacity curve (Reference 2). For a 375 mm WG RTD level, we noticed that an economy of 5% of cellulose could be made by using the 3.3/44.000 Y. Then MLF-CH cigarettes were made by using these filters and these were compared to MLF-CH standard cigarettes. From the smoke delivery point of view, no difference was noticed between trial and control cigarettes. These cigarettes were submitted for taste evaluation. The different panels did not notice any significant difference in taste. It was decided to make a Panel D test (mail-out test) for further evaluation.

Follow-up

MLF-CH cigarettes were produced with filter tips made with the 3.3/44.000 Y tow and with the 3.4/46.000 I item. The cigarettes will be checked once again before the test is mailed out. We expect to make a final decision, based upon the mail-out test, at the end of July.

3. STUDY: Cigarette Construction

Objective

Prediction of the type of filtration material to be used on a prototype in order to reach the required level of dilution and smoke deliveries.

Summary

A brief description of the model is given in the block diagram (Figure 1).

Overview

The model is based upon the Scotch Study (Reference 3). As this study is limited by the range of dilution covered (10-40% FTR), the prediction out of these limits of dilution is not reliable.

Follow-up

The model will be further developed as soon as other results are available for the Scotch Study.

E. Schuler

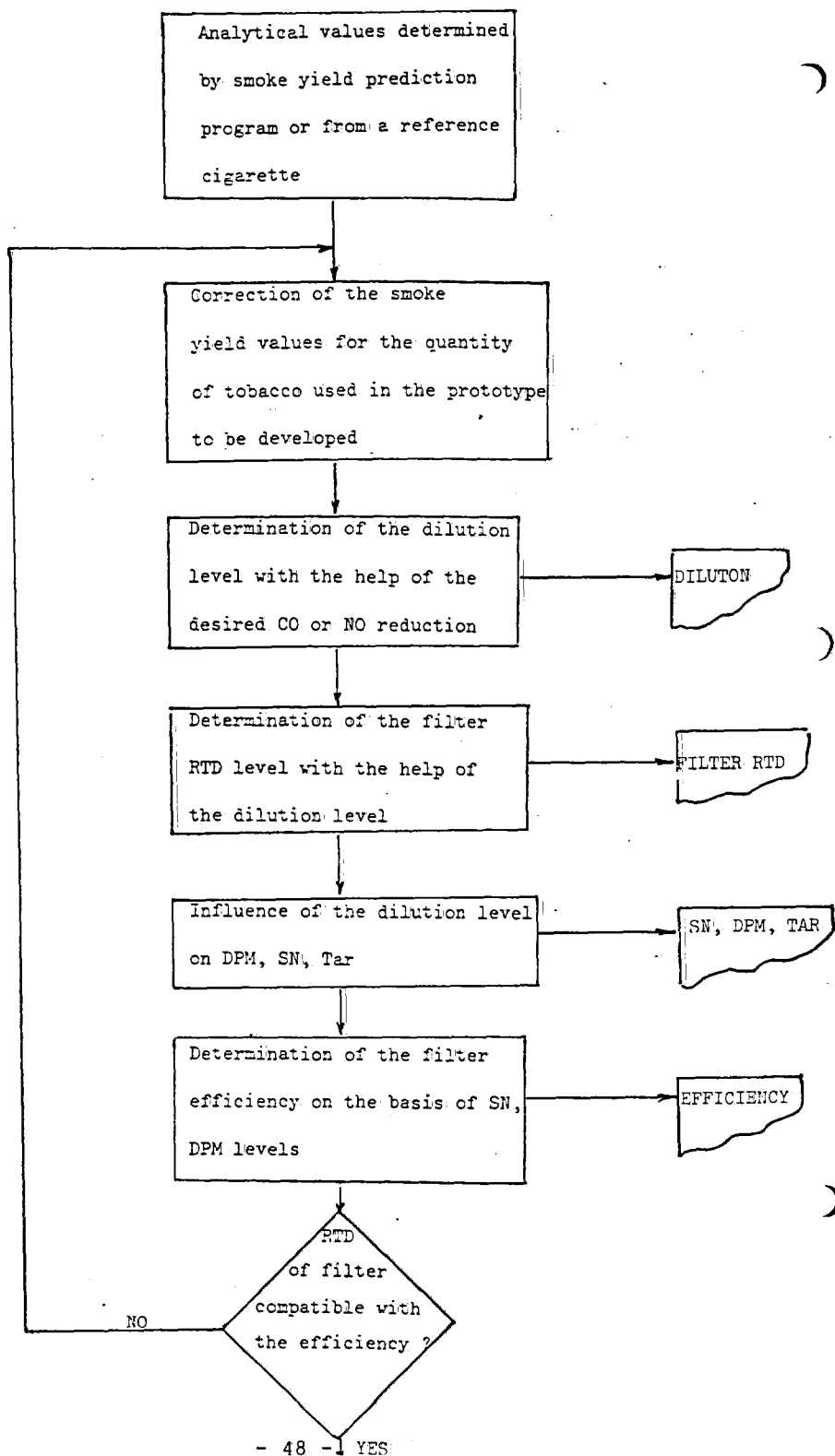
References

1. Erkohen-E Monthly Report (March 1981)
2. Erkohen-E Monthly Report (February 1981)
3. Joseph-L Monthly Report (April 1981).

ELE/nod/MAY 27 1981

0000144380

FIG I



0000144381